



Robert Bosch GmbH

Power Tools Division 70764 Leinfelden-Echterdingen GERMANY

www.bosch-garden.com

F 016 L81 158 (2014.12) 0 / 20 **XXX**



Rotak

37-36 LI Ergo | 43 LI-2 Ergoflex 37 LI Ergoflex | 43 LI Ergoflex | 410 LI Ergoflex



BOSCH

en Original instructions













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English

Safety Notes

Warning! Read these instructions carefully, be familiar with the controls and the proper use of the machine. Please keep the instructions safe for later use!

Explanation of symbols on the machine



General hazard safety alert.



Read instruction manual.



Pay attention that bystanders are not injured through foreign objects thrown from the machine.



Warning: Keep a safe distance from the machine when operat-



Caution: Do not touch rotating blades. Sharp blade(s). Beware of severing toes or fingers.



Switch off and remove isolator key before adjusting, cleaning and before leaving the product unattended for any period.



Not applicable.



Wait until all machine components have completely stopped before touching them. The

blades continue to rotate after the machine is switched off, a rotating blade can cause injury.



Do not use the machine in the rain or leave it outdoors when it is raining.



Beware electric shock hazard.



Not applicable.



Only use the battery charger indoors.



Battery charger contains a safety transformer.

Operation

- ► Never allow children or people unfamiliar with these instructions to use the machine. Local regulations may restrict the age of the operator. When not in use store the machine out of reach of children.
- ► This machine is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the machine by a person responsible for their
 - Children should be supervised to ensure that they do not play with the machine.
- ► Never mow while people, especially children, or pets are nearby.
- ► The operator or user is responsible for accidents or hazards occurring to other people or their property.





















- ▶ Do not operate the machine when barefoot or wearing open sandals. always wear substantial footwear and long trousers.
- ► Thoroughly inspect the area where the machine is to be used and remove all stones, sticks, wires, bones and other foreign objects.
- ► Before using, always visually inspect to see that the blades, blade bolts and cutter assembly are not worn or damaged. Replace worn or damaged blades and bolts in sets to preserve balance.
- ► Mow only in daylight or in good artificial light.
- ► Avoid mowing in bad weather conditions especially when there is a risk of lightning.
- ► Avoid operating the machine in wet grass, where feasible.
- ► Walk, never run.
- ► Never operate the appliance with defective guards or shields, or without safety devices, for example deflectors and/or grass catchers in place.
- ► Always wear ear protection.
- ► Working on banks can be danger-
 - Do not mow on excessively steep slopes.
 - Always be sure of your footing on slopes or wet grass.
 - Mow across the face of slopes never up and down.
 - Exercise extreme caution when changing direction on slopes.

- ► Use extreme caution when stepping back or pulling the machine towards
- ► Never mow by pulling the mower towards you.
- ► Stop the blades if the machine has to be tilted for transportation when crossing surfaces other than grass and when transporting the machine to and from the area to be mowed.
- ▶ Do not tilt the machine when starting or switching on the motor, except if the machine has to be tilted for starting in long grass. In this case, do not tilt it more than absolutely necessary and tilt only the part which is away from the operator. Always ensure that both hands are in the operating position before returning the machine to the ground.
- ► Switch on the motor according to the instructions with feet well away from rotating parts.
- ▶ Do not put hands or feet near or under rotating parts.
- ► Always stand clear of the discharge zone when operating the machine.
- ► Never pick up or carry the machine while the motor is running.
- ▶ **Do not modify this product.** Unauthorized modifications may impair the safety of your product and may result in increased noise and vibra-
- ► Regularly inspect the supply cable and any extension cables. Do not connect damaged cables to the supply or touch a damaged cable before it is disconnected from the supply.





















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A damaged cable can lead to contact with live parts. Beware electric shock hazard.

Leaf Collect

The leaf collect blade has been designed to allow you to pick up autumn leaves from your lawn. In order for this functionality to work within optimal parameters, please note the following:

- only collect leaves with the machine set at 70 mm cutting hight
- collect leaves from your lawn only
- before collecting leaves inspect the area where the machine is to be used and keep people, pets, glass structures and cars away from use

Remove the isolator key:

- Whenever you leave the machine.
- before clearing a blockage,
- before checking, cleaning or working on the machine.
- after striking a foreign object. Inspect the machine for damage and make repairs as necessary,
- if the machine starts to vibrate abnormally (check immediately).

Maintenance

- ► Always wear gardening gloves when handling or working near the sharp blades.
- ► Keep all nuts, bolts and screws tight to be sure that the machine is in safe working condition.
- ► Check the grass catcher frequently for wear or deterioration.
- ► Examine the machine and replace worn or damaged parts for safety.
- ► Ensure replacement cutting means of the right type are used.

- ► Ensure replacement parts fitted are Bosch approved.
- ► Before storage ensure machine is clean and free from debries, if necessary clean with a soft, dry brush.

Recommendations for Optimal Handling of the Battery

- ► Ensure the switch is in the off position before inserting battery pack. Inserting the battery pack into machines that have the switch on can cause accidents.
- ► Keep the battery charger away **from rain or moisture.** Penetration of water in the battery charger increases the risk of an electric shock.
- ► Recharge only with the charger specified by the manufacturer. A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery
- ▶ **Do not charge other batteries.** The battery charger is suitable only for charging Bosch lithium-ion batteries within the listed voltage range. Otherwise there is danger of fire and explosion.
- ► Keep the battery charger clean. Contamination can lead to danger of an electric shock.
- ► Before each use, check the battery charger, cable and plug. If damage is detected, do not use the battery charger. Never open the battery charger yourself. Have repairs performed only by a qualified technician and only using original spare **parts.** Damaged battery chargers, cables and plugs increase the risk of an electric shock.



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▶ Do not operate the battery charger on easily inflammable surfaces (e.g., paper, textiles, etc.) or sur**roundings.** The heating of the battery charger during the charging process can pose a fire hazard.

- ► Use only Bosch battery packs intended specifically for the ma**chine.** Use of any other battery packs may create a risk of injury and fire.
- ► When battery pack is not in use, keep it away from other metal objects like paper clips, coins, keys, nails, screws, or other small metal objects that can make a connection from one terminal to another. Shorting the battery terminals together may cause burns or a fire.
- ► Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help. Liquid ejected from the battery may cause irritations or burns.
- ▶ **Do not open the battery.** Danger of short-circuiting.
- ► Protect the battery against heat, e.g., against continuous intense sunlight, fire, water, and mois**ture.** Danger of explosion.
- **▶** Do not short-circuit the battery. There is danger of explosion.
- ► In case of damage and improper use of the battery, vapours may be emitted. Ventilate the area and seek medical help in case of com-

- plaints. The vapours can irritate the respiratory system.
- ► Protect the battery against moisture and water.
- ► Store the battery only within a temperature range between - 20 °C and 50 °C. As an example, do not leave the battery in the car in sum-
- ► Occasionally clean the venting slots of the battery using a soft, clean and dry brush.
- ▶ Before storage ensure machine is clean and free from debries, if necessary clean with a soft, dry brush.

Symbols

The following symbols are important for reading and understanding the operating instructions. Please take note of the symbols and their meaning. The correct interpretation of the symbols will help you to use the garden product in a better and safer manner.

Symbol	Meaning
1	Movement direction
1	Reaction direction
	Wear protective gloves
i	Weight
I	Switching On
0	Switching Off
1	Permitted action
\times	Prohibited action
	Accessories/Spare Parts

Intended Use

The garden product is intended for domestic lawnmowing.





















Technical Data

Cordless Lawnmower		Rotak 37-36 LI Ergo/	Rotak 43 LI-2 Ergoflex/
		Rotak 37 LI Ergoflex	Rotak 43 LI Ergoflex/ Rotak 410 LI Ergoflex
Article number		3 600 HA4 4	3 600 HA4 5
Blade width	cm	37	43
Height of cut	mm	20 - 70	20 - 70
Grassbox, capacity	- 1	40	50
Weight according to EPTA-Procedure 01/2003	kg	13.2	13.9
Serial number		see type p	plate on the garden product
Battery		Li-lon	Li-lon
Article number		F 016 800 346	F 016 800 346
Rated voltage	V=	36	36
Capacity	Ah	4	4
Charging period (battery discharged)*	min	140	140
Charging period (battery discharged)**	min	95	95
Number of battery cells		20	20
Battery Charger		AL 3620 CV Professional	AL 3620 CV Professional
Article number	EU	2 607 225 657	2 607 225 657
	UK	2 607 225 659	2 607 225 659
	AU SK	2 607 225 661 2 607 225 667	2 607 225 661
Charging augrent		2.007 225 667	2 607 225 667
Charging current	A °C	0 - 45	
Allowable charging temperature range			0 – 45
Weight according to EPTA-Procedure 01/2003	kg	0.6	0.6
Protection class		□/II AL 3640 CV	□/II AL 3640 CV
Battery Charger		AL 3640 CV Professional	AL 3640 CV Professional
Article number	EU	2 607 225 099	2 607 225 099
	UK	2 607 225 101	2 607 225 101
	AU	2 607 225 103	2 607 225 103
	SK	2 607 225 111	2 607 225 111
Charging current	A	4.0	4.0
Allowable charging temperature range	°C	0 - 45	0 – 45
Weight according to EPTA-Procedure 01/2003	kg	1.0	1.0
Protection class		□/II	□/II

^{*}with AL 3620 CV Professional charger

 $\overline{ } Please observe the article number on the type plate of your garden product. The trade names of the individual garden products may vary. \\$

Noise/Vibration Information

75	76
	76
	, ,
89	90
1.0	=1.0
2.5	< 2.5
1 5	= 1.5
	<2.5 = 1.5















^{**}with AL 3640 CV Professional charger









Declaration of Conformity

	3 600	HA4 4	HA4 5
We declare under our sole responsibility that the product described under "Technical data" is			
in conformity with all relevant provisions of the directives 2011/65/EU, 2014/30/EU,			
2006/42/EC, 2000/14/EC including their amendments and complies with the following			
standards: EN 60335-1, EN 60335-2-77.			
2000/14/EC: Guaranteed sound power level:	dB(A)	89	90
Conformity assessment procedure according to Annex VI.			

Equipment category: 32

Notified body:

SRL, Sudbury, England, Nr. 1088

Technical file (2006/42/EC, 2000/14/EC) at: Bosch Lawn and Garden Ltd., PT-LG/ENS23, Stowmarket, Suffolk IP14 1EY, England

Henk Becker **Executive Vice President** Engineering

Helmut Heinzelmann **Head of Product Certification** PT/ETM9



Robert Bosch GmbH, Power Tools Division 70764 Leinfelden-Echterdingen, GERMANY 04.09.2014

Mounting and Operation

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Starting

For Your Safety

Bosch Power Tools

- ► Warning! Switch off, remove the isolator key and the battery before adjusting, cleaning or if cable is cut, damaged or entangled.
- ▶ The blades continue to rotate for a few seconds after the machine is switched off.
- ► Caution do not touch the rotating blade.

Battery Charging

- ▶ Do not use other battery chargers. The supplied battery charger is designed for the Lithium-Ion battery in your gar-
- ▶ Observe the mains voltage! The voltage of the power supply must correspond with the data given on the nameplate of the battery charger. Battery chargers marked with 230 V can also be operated with 220 V.

The battery is equipped with temperature monitoring that allows charging only in the temperature range between 0 °C and 45 °C. In this manner, a high battery service life is achieved.

Note: The battery supplied is partially charged. To ensure full capacity of the battery, completely charge the battery in the battery charger before using your power tool for the first time. \\

The lithium-ion battery can be charged at any time without reducing its service life. Interrupting the charging procedure does not damage the battery.

The "Electronic Cell Protection (ECP)" protects the lithiumion battery against deep discharging. When the battery is run down or discharged, the garden product is shut off by means of a protective circuit: The blade no longer moves.

⚠ IMPORTANT Do not continue to press the On/Off $switch\,after\,the\,garden\,product\,has$

been automatically switched off. The battery can be damaged.

Charging Procedure

The charging procedure starts as soon as the mains plug of the battery charger is plugged into the socket outlet and the battery is inserted into the charging compartment .

Due to the intelligent charging method, the charging condition of the battery is automatically detected and the battery is charged with the optimum charging current, depending on battery temperature and voltage.

This gives longer life to the battery and always leaves it fully charged when kept in the charger for storage.

Rapid-charging Procedure



AL 3640 CV **Professional**



AL 3620 CV Professional











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The rapid-charging procedure is indicated by flashing of the green charge control LED

Indication element of the battery:

During the charging procedure, the three green LEDs light up one after the other and briefly go out. The battery is fully charged when the three green LEDs light up continuously. The three LEDs go out again approx. 5 minutes after the battery has been fully charged.

Note: The rapid-charging procedure is only possible when the battery temperature is within the allowable charging temperature range, see section "Technical Data".

Battery Charged



AL 3640 CV Professional



AL 3620 CV **Professional**

Continuous lighting of the green charge control LED signals that the battery is fully charged.

Additionally, a signal tone sounds for approx. 2 seconds, which acoustically indicates that the battery is fully charged. Afterwards, the battery can be removed for immediate use.

With no battery inserted, continuous lighting of the green charge control LED indicates that the mains plug is plugged into the socket and that the battery charger is ready for oper-

Battery Temperature below 0 °C or above 45 °C



AL 3640 CV Professional



AL 3620 CV Professional

Continuous lighting of the red LED indicates that the bat $tery\,temperature\,is\,not\,within\,the\,rapid-charging\,temperature$ range of 0 °C – 45 °C. As soon as the allowable temperature range is reached, the battery charger automatically switches to rapid charging.

When the battery is not within the allowable temperature range, the red battery LED lights up when inserting the battery into the battery charger.

No charging procedure possible



AL 3640 CV **Professional**



AL 3620 CV **Professional**

If a different malfunction of the charging procedure is present, this will be indicated through **flashing** of the **red charge** control LED .

The charging procedure cannot be started and the battery cannot be charged (see section "Troubleshooting").

Charging Advice

With continuous or several repetitive charging cycles without interruption, the charger can warm up. This is not meaningful and does not indicate a technical defect of the battery charg-

A significantly reduced working period after charging indicates that the battery is used and must be replaced.

Observe the notes for disposal.

Battery Cooling (Active Air Cooling)

The fan control integrated in the battery charger controls the temperature of the inserted battery. When the battery temperature is above 30 °C, a fan cools down the battery to the optimal charging temperature. The switched-on fan produces

The battery temperature is within the optimal charging temperature range when the fan is not running. Another reason for a non working fan might be that it is defective. In this case, the charging time of the battery might be extended.

Working Advice

Battery Charge-control Indication

The battery is equipped with a charge-control indicator which indicates its charge condition. The charge-control indicator consists of 3 green LEDs.

Press the button to actuate the charge-control indicator . After approx. 5 seconds, the charge-control indicator goes out automatically.

The charge condition can also be checked when the battery is removed.

LED Indicators	Battery Capacity
Continuous lighting of 3 green LEDs	≥ 2/3
Continuous lighting of 2 green LEDs	≥ 1/3
Continuous lighting of 1 green LED	≤ 1/3
Flashing of 1 green LED	Reserve

When no LED lights up after actuating the button, the battery is defective and must be replaced.

For safety reasons, the charge condition of the battery can only be checked when the garden product is at a standstill.

During the charging procedure, the three green LEDs light up one after the other and briefly go out. The battery is fully charged when the three green LEDs light up continuously. The three LEDs go out again approx. 5 minutes after the battery has been fully charged.



























Temperature Control Indicator

The red LED signals that the battery or the electronics of the garden product (with battery inserted) are not within the optimum temperature range. When this occurs the garden product will not operate or not at full capacity.

Temperature Control of the Battery

The red LED flashes when you press the button or the On/Off switch (with battery inserted): The battery is outside of the permitted operating temperature range.

The battery switches off at a temperature above 70 °C until the optimum temperature range is reached again.

Temperature Control of the Garden Product Electronics

The red LED lights up **continuously** when pressing the On/Off switch: The temperature of the garden product electronics is below 5 °C or above 75 °C.

At a temperature above 90 °C, the electronics of the garden product switch off until the temperature is within the allowable temperature range again.

Area of Cut (Battery Duration)

The area of cut (battery duration) depends on lawn conditions, grass density, mositure content, grass length and height of cut.

Switching the machine on and off frequently during cutting will also reduce the area of cut (battery duration).

To improve the area of cut (battery duration) it is recommended to cut more frequently, raise the cutting height and walk at

The example below shows impact of conditions against run time, when using the machine with two batteries.

Cutting Conditions Very light, dry grass





Light, dry grass

Area of cut

up to $450\,\text{m}^2$

up to 225 m²

To increase the run time an additional battery or higher capacity battery (Ah) can be purchased from an authorised customer service agent for Bosch garden products.

Troubleshooting



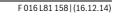






Problem	Possible Cause	Corrective Action
Machine fails to operate	Possible clogging	Remove the isolator key: Check underneath the garden product and clear out as necessary (always wear protective gloves)
	Battery not fully charged	Battery Charging
	Battery not inserted (properly)	Inserting the battery
	Grass too long	Increase height of cut and tilt garden product to reduce starting load
	Motor protector has activated	Allow motor to cool and increase height of cut
	Battery too hot/cold	Allow to cool/warm
	Isolator key not inserted correctly/fully	Fit correctly
	There is a short delay in the motor starting after engaging the On/Off switch	Hold On/Off switch for 1 – 3 s to start motor
Motor starts and stops immedi-	Battery not fully charged	Battery Charging
ately	Isolator key not inserted correct- ly/fully	Fit correctly
	Battery not inserted (properly)	Inserting the battery
	Battery too hot/cold	Allow to cool/warm















Increase height of cut











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Problem	Possible Cause	Corrective Action
Machine functions intermittently	Internal wiring of machine damaged	Contact Service Agent
	Motor protector has activated	Allow motor to cool and increase height of cut
Machine leaves ragged finish	Height of cut too low	Increase height of cut
and/or	Cutting blade blunt	Replace the blade
Motor labours	Possible clogging	Check underneath the garden product and clear out as necessary (always wear protective gloves)
	Blade fitted upside down	Refit blade correctly
Area of cut (battery duration)	Height of cut too low	Increase height of cut and walk slower
not large enough	Grass too high	Increase height of cut and walk slower
	Grass wet or damp	Wait until grass is dry and walk slower
	Grass is dense	Increase height of cut, walk slower and cut more frequently
	An additional battery can be pur- chased from an authorised cus- tomer service agent for Bosch garden products	Contact Service Agent
Cutting blade not rotating while	Cutting blade obstructed	Switch off garden product
garden product switched on		Clear obstruction (always wear protective gloves)
	Blade nut/bolt loose	Tighten blade nut/bolt (17 Nm)
Excessive vibrations/noise	Blade nut/bolt loose	Tighten blade nut/bolt (17 Nm)
	Cutting blade damaged	Replace the blade
No charging procedure possible	Battery contacts contaminated	Clean the battery contacts (e.g. by inserting and removing the battery several times) or replace the battery
	The battery is defective, due to a disconnection in the battery (individual cells)	Replace the battery
The charge control LEDs and respectively, do not light up after	plugged in (properly)	Insert mains plug (fully) into the socket outlet
inserting the mains plug into the socket	Socket outlet, mains cable or battery charger defective	Check the mains voltage and if necessary, have the battery charger checked by an authorized customer service station for Bosch power tools

Maintenance and Service



Battery Maintenance

- ► Warning! Switch off, remove the isolator key, battery and grassbox before adjusting or cleaning.
- ▶ Always wear gardening gloves when handling or working near the sharp blades.

Use the following procedures to enable optimum usage of the battery:

- Protect the battery against moisture and water.
- Store the battery only within a temperature range between
 20 °C and 50 °C. As an example, do not leave the battery in the car in summer.
- Do not leave the battery in the product in direct sunlight.
- The ideal storage condition for the battery is 5 °C.

Occasionally clean the venting slots of the battery using a soft, clean and dry brush.

A significantly reduced working period after charging indicates that the battery is used and must be replaced.

After-sales Service and Application Service www.bosch-garden.com

In all correspondence and spare parts orders, please always include the 10-digit article number given on the type plate of $% \left\{ 1,2,\ldots ,n\right\}$ the garden product.

























Great Britain

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At www.bosch-pt.co.uk you can order spare parts or arrange the collection of a product in need of servicing or repair.

Tel. Service: (0344) 7360109 E-Mail: boschservicecentre@bosch.com

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Origo Ltd. Unit 23 Magna Drive Magna Business Park City West Dublin 24

Tel. Service: (01) 4666700 Fax: (01) 4666888

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 $E\hbox{-Mail: }rbsa\hbox{-hq.pts} @za.bosch.com\\$

Transport

The contained lithium-ion batteries are subject to the Dangerous Goods Legislation requirements. The user can transport the batteries by road without further requirements.

When being transported by third parties (e.g.: air transport or forwarding agency), special requirements on packaging and labelling must be observed. For preparation of the item being shipped, consulting an expert for hazardous material is re-

Dispatch batteries only when the housing is undamaged. Tape or mask off open contacts and pack up the battery in such a manner that it cannot move around in the packaging. Please also observe possibly more detailed national regula-

Disposal

Do not dispose of garden products, battery chargers and batteries/rechargeable batteries into household waste!

Only for EC countries:



According to the European law 2012/19/EU, electrical and electronic equipments that are no longer usable, and according to the European law 2006/66/EC, defective or used battery packs/batteries, must be collected separately and disposed of in an environmentally correct manner.

Batteries no longer suitable for use can be directly returned

Great Britain

Robert Bosch Ltd. (B.S.C.) P.O. Box 98 Broadwater Park North Orbital Road Denham Uxbridge UB 9 5HJ

At www.bosch-pt.co.uk you can order spare parts or arrange the collection of a product in need of servicing or repair.

Tel. Service: (0344) 7360109 E-Mail: boschservicecentre@bosch.com

Battery packs/batteries:



Please observe the instructions in section "Transport".

Subject to change without notice.













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